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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/837,760	04/17/2001	Michael Propp	0382/1D761	8903

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EXAMINER

AHN, SAM K

ART UNIT PAPER NUMBER

2634

DATE MAILED: 07/02/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

**Office Action Summary**

Application No.

09/837,760

Applicant(s)

PROPP ET AL.

Examiner

Sam K. Ahn

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 17 April 2001.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-3 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-3 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 17 April 2001 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date \_\_\_\_\_.
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: \_\_\_\_\_.

## DETAILED ACTION

### *Drawings*

1. The letter B in Fig.3 needs to have descriptive label, in conformance with 37 CFR 1.84(n) and 1.84(o). For example, a descriptive label of "buffer" should be inserted into B of Fig.3 to properly describe element. Also, the inverters in Fig.2 and 3 should be labeled as such.
2. The drawings are objected to under 37 CFR 1.83(a). The drawings must show every feature of the invention specified in the claims. Therefore, the combining circuit must be shown or the feature(s) canceled from the claim(s). No new matter should be entered. It appears that the XOR circuit in Fig.1 is a combining circuit, however, it is not described and is not labeled.

Furthermore, it does not show the limitation of "combining the outputs of N inverters", as recited in line 12 of claim 2.

Corrected drawing sheets are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. The figure or figure number of an amended drawing should not be labeled as "amended." If a drawing figure is to be canceled, the appropriate figure must be removed from the replacement sheet, and where necessary, the remaining figures must be renumbered and appropriate changes made to

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the brief description of the several views of the drawings for consistency. Additional replacement sheets may be necessary to show the renumbering of the remaining figures. The replacement sheet(s) should be labeled "Replacement Sheet" in the page header (as per 37 CFR 1.84(c)) so as not to obstruct any portion of the drawing figures. If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

### ***Claim Objections***

3. Claims 2 and 3 are objected to because of the following informalities:

In claim 2, line 1, delete "the oscillator" and insert "the solid-state oscillator".

In claim 2, line 5, delete "its inputs" and insert "the first and second inputs".

In claim 2, line 6, delete "output voltage" and insert "output voltage signal".

In claim 2, lines 5-6, delete "by a signal applied to the control input, the difference signal" and insert "by the difference signal".

In claim 2, line 9, delete "the inverters" and insert "the inverter devices".

In claims 2 and 3, lines 9 and 4, respectively, delete "the delay of an" and insert "the delay of each".

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In claim 2, line 10, delete "the voltage applied" and insert "a voltage applied".

In claim 2, line 11, delete "the output voltage being applied to reference voltage" and insert "the output voltage signal being applied to the reference voltage".

In claim 2, line 12, delete "inverters;" and insert "inverters, wherein".

In claim 3, lines 4-6, delete "controlled by the value of the voltage applied to the reference voltage connection, the output voltage being applied to the reference voltage" and insert "controlled by the output voltage signal applied to the reference voltage".

In claim 3, lines 7-8, delete "inventor of the delay line;" and insert "inverter of the delay line; and".

In claim 3, line 9, delete "outputs of the inverters" and insert "outputs of each of the inverters".

In claim 3, line 11, delete "a frequency" and insert "said frequency".

Appropriate correction is required.

### ***Claim Rejections - 35 USC § 112***

The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

4. Claims 1-3 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement. The claim(s) contains

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subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention.

In claim 1, lines 2-3, recite "the output of the last inverter being fed back to the input of the first inverter." As illustrated in Fig.1 and 3, and as described in the specification, the output of the last inverter is coupled to a buffer. The buffer is then fed back to the first inverter. Therefore, the specification and drawings fail to support the claimed limitations as recited.

Claim 2 recites "a combining circuit combining the outputs of N inverters... which is N times the clock frequency." The specification does not describe in such a way as to reasonably convey to one skilled in the art. What are N inverters, which appears to be related to the N times the clock frequency?

Claim 3 directly depends on claim 2.

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

5. Claims 2 and 3 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

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Claim 2 appears to be depending on claim 1. However, the claim does not recite as such, wherein claim 3 directly depends on claim 2.

*Assuming the recitation of claim 1 has overcome 112, 1<sup>st</sup> rejection,*

***Claim Rejections - 35 USC § 102***

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

6. Claim 1 is rejected under 35 U.S.C. 102(b) as being anticipated by Eitan.

Regarding claim 1, Eitan teaches a solid-state oscillator comprising an odd number (three) of solid-state inverter devices cascaded in series, each inverter device having an input and an output, the output of the last inverter device being fed back to the input of the first inverter. (see Fig.1 and note col.1, lines 13-21)

***Conclusion***

7. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Takebe and Chiuch et al. teach a ring oscillator comprising plurality of inverters in a series.

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Any inquiry concerning this communication or earlier communications from the examiner should be directed to **Sam Ahn** whose telephone number is **(703) 305-0754**.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, **Stephen Chin**, can be reached at **(703) 305-4714**.

**Any response to this action should be mailed to:**

Commissioner of Patents and Trademarks

P.O. Box 1450

Alexandria, VA 22313-1450


**or faxed to:**

**(703) 872-9306**

Hand-delivered responses should be brought to Crystal Park II, 2121 Crystal Drive, Arlington, VA., Sixth Floor (Receptionist).

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the Technology Center 2600 Customer Service Office whose telephone number is (703) 306-0377.

Sam K. Ahn  
6/24/04

  
YOUNG T. TSE  
PRIMARY EXAMINER